Appl. No. 09/508,405

AMENDMENTS TO THE CLAIMS

1-30. Cancelled.

- 31. (Currently Amended) A process for preparing linear high melt strength propylene homopolymers and copolymers, comprising the steps of
 - subjecting propylene and optionally other olefins to polymerization in a plurality of polymerization reactors connected in series wherein said reactors are selected from the group consisting of loop reactors and gas phase reactors and wherein said reactors comprise at least one loop reactor and at least one gas phase reactor.
 - employing different amounts of hydrogen as a molar mass modifier in at least two of the reactors, and
 - carrying out the polymerization reaction in the presence of a catalyst system which catalyzes the formation of a high molar mass polymerization product having a MFR₂ of less than 0.1 g/10 min and a low or medium molar mass polymerization product having a MFR₂ of more than 0.5 g/10 min,

wherein the second reactor is a gas phase reactor, wherein propylene and optionally comonomers are polymerized in a gaseous reaction medium, and wherein an overhead stream or part of it is recirculated to the second reactor.

- 32. (Previously Presented) A process for preparing linear high melt strength propylene homopolymers and copolymers, comprising the steps of
 - subjecting propylene and optionally other olefins to polymerization in a plurality of polymerization reactors connected in series wherein said reactors are selected from the group consisting of loop reactors and gas phase reactors and wherein said reactors comprise at least one loop reactor and at least one gas phase reactor,
 - employing different amounts of hydrogen as a molar mass modifier in at least two of the reactors, and
 - carrying out the polymerization reaction in the presence of a catalyst system which catalyzes the formation of a high molar mass polymerization product having a MFR₂

of less than 0.1 g/10 min and a low or medium molar mass polymerization product having a MFR₂ of more than 0.5 g/10 min,

wherein the second polymerization product is fed into a third reactor and propylene is subjected to a third polymerization reaction to produce a third polymerization product.

- 33. (Previously Presented) The process according to claim 32, wherein the third polymerization reaction is carried out in a gas phase reactor in the presence of comonomers which give the third polymerization product properties of improved impact strength.
- 34. (Previously Presented) The process according to any one of claims 32 or 33, wherein the product of polymerization reaction is transferred to a fourth polymerization reaction zone.
- 35. Cancelled
- 36. (Currently Amended) A process for preparing linear high melt strength propylene homopolymers and copolymers, comprising the steps of
 - subjecting propylene and optionally other olefins to polymerization in a plurality of polymerization reactors connected in series wherein said reactors are selected from the group consisting of loop reactors and gas phase reactors and wherein said reactors comprise at least one loop reactor and at least one gas phase reactor.
 - employing different amounts of hydrogen as a molar mass modifier in at least two of the reactors, and
 - carrying out the polymerization reaction in the presence of a catalyst system which

 catalyzes the formation of a high molar mass polymerization product having a MFR₂

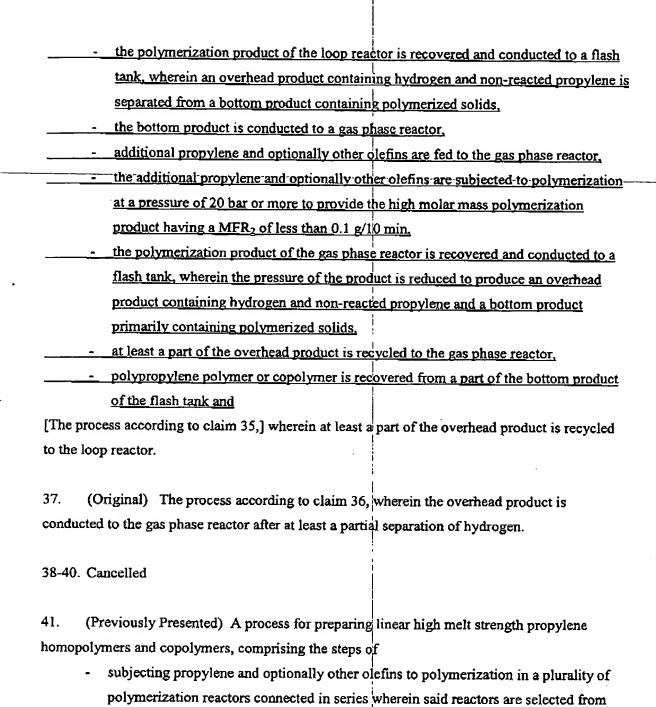
 of less than 0.1 g/10 min and a low or medium molar mass polymerization product

 having a MFR₂ of more than 0.5 g/10 min,

wherein

propylene and optionally other olefins are polymerized in a loop reactor at a pressure of 25 to 80 bar, at a temperature of 60 to 100°C to provide the low or medium molar mass polymerization product having a MFR of more than 0.5 g/10 min,

Appl. No. 09/508,405



comprise at least one loop reactor and at least one gas phase reactor,

the group consisting of loop reactors and gas phase reactors and wherein said reactors

Appl. No. 09/508,405

- employing different amounts of hydrogen as a molar mass modifier in at least two of the reactors, and
- carrying out the polymerization reaction in the presence of a catalyst system which catalyzes the formation of a high molar mass polymerization product having a MFR₂ of less than 0.1 g/10 min and a low or medium molar mass polymerization product having a MFR₂ of more than 0.5 g/10 min, which is nucleated for higher crystallization temperature, stiffness and optical properties.

42. Cancelled